

§ 164.003-4

(b) Kapok shall be processed by teasing in a machine using the air-blow method. Mechanical separation of fiber masses is permitted, but machines using violent beating which breaks down the fibers or causes undue powdering or pulverizing are not permitted. Provision shall be made for trapping seeds and heavy objects in gravity traps and the dust or powder in an efficient dust collector.

(c) Processed kapok shall have a buoyancy in fresh water of at least 48 pounds per cubic foot when tested in accordance with § 164.003-4(d). Rejected kapok shall not be used in lifesaving products inspected by the Coast Guard.

(d) The processed kapok shall contain not more than 5 percent by weight of sticks, seeds, dirt or other foreign material and shall be free from objectionable odor and adulteration with other fibers.

§ 164.003-4 Inspections and tests.

(a) Kapok fibers to be used in a finished product subject to inspection by the Coast Guard shall be subject to inspection and tests at the plant of the manufacturer of such product, who shall furnish the necessary testing tank, test cages, and scales.

(b) Acceptance of kapok prior to being incorporated into finished products, or during the course of manufacture, shall in no case be construed as a guarantee of the acceptance of the finished product.

(c) Not less than a one-pound sample from each 1,000 pounds of kapok shall be tested for buoyancy by the inspector. At his discretion, the inspector may select additional samples for tests if deemed advisable.

(d) The buoyancy test shall be made with 16 ounces of processed kapok uniformly packed in a rigid wire box or cage with metal reinforced edges, and submerged by weights in a tank of fresh water to a depth of 12 inches below the surface of the water, measurement made to the top of box, for 48 hours. The test box shall be cylindrical in shape, and as nearly as practicable $\frac{1}{3}$ cubic foot in volume, 4 inches deep, 13.54 inches diameter, all inside measurements; constructed of about 0.065 inch galvanized iron wire with about $\frac{1}{4}$ inch mesh, and lined with about 0.007

46 CFR Ch. I (10-1-13 Edition)

inch copper wire screen about 18 meshes to the inch, to prevent the kapok from pushing out through the larger wire meshes. At the end of forty-eight hours submergence, the buoyancy shall be determined by subtracting the submerged weight of the box, accessory weights and kapok from the submerged weight of the box and weights without the kapok, and dividing the remainder by the volume of the kapok expressed in cubic feet.

(e) Kapok fiber shall, at the option of the inspector, be subjected to a microscopic examination to detect adulteration with other fiber.

(f) Processed kapok shall, at the option of the inspector, be subjected to separation of kapok fibers from foreign matter by hand, the portions of each weighed, and percentage of foreign matter computed for compliance with § 164.003-3(d).

§ 164.003-5 Procedure for approval.

(a) Processed kapok is not subject to formal approval, but will be accepted by the inspector on the basis of this subpart for use in the manufacture of lifesaving equipment utilizing it.

(b) [Reserved]

Subpart 164.006—Deck Coverings for Merchant Vessels

SOURCE: CGFR 53-25, 18 FR 7874, Dec. 5, 1953, unless otherwise noted.

§ 164.006-1 Applicable specifications.

(a) There are no other specifications applicable to this subpart.

(b) [Reserved]

§ 164.006-2 Grades.

(a) Deck coverings shall be of but one grade as specified in this subpart, and shall be known as “an approved deck covering.”

(b) [Reserved]

§ 164.006-3 Construction, materials, and workmanship.

(a) It is the intent of this specification to obtain a deck covering made largely of incombustible materials with low heat transmission qualities which will produce a minimum of

smoke when exposed to high temperatures.

(b) Deck coverings shall be of such a quality as to successfully pass all of the tests set forth in § 164.006-4.

§ 164.006-4 Inspection and testing.

(a) All tests shall be conducted at the National Bureau of Standards or other laboratories designated by the Coast Guard.

(b) *Smoke tests.* (1) A sample of each thickness submitted shall be tested for smoke emission. Each sample shall be laid on a $\frac{1}{4}$ " \times 12" \times 27" steel plate. Normal protective coatings and deck attachments shall be incorporated in the samples. Each sample shall be heated in a furnace whose temperature is limited to the standard decking curve reaching 1,325 degrees F. at the end of one hour. Smoke observations shall be made at intervals not greater than five minutes during the one-hour period of test.

(2) Instantaneous values of the percent of light transmission shall be calculated from the observations noted in paragraph (b)(1) of this section. A plot of light transmission values shall be made using straight lines between instantaneous values.

(3) Any instantaneous value of 10 percent light transmission or less shall be considered sufficient cause for rejection of a deck covering.

(4) Average values of light transmission shall be calculated for 15, 30, and 60 minutes. Averages shall be an arithmetic mean with values taken at one minute intervals from the plotted curve noted in paragraph (b)(2) of this section. If any of the three average values of light transmission is less than the values set forth below, it will be considered sufficient cause for rejection of a deck covering:

15 minutes—90 percent light transmission.
30 minutes—60 percent light transmission.
60 minutes—50 percent light transmission.

(c) *Fire resistance and integrity tests.* (1) A sample of each thickness submitted shall be tested for fire resistance and integrity. Each sample shall be laid on a $\frac{1}{4}$ " \times 12" \times 27" steel plate. Normal protective coatings and deck attachments shall be incorporated in the samples. Each sample shall be

heated in a furnace whose temperature is controlled according to the standard fire exposure curve reaching 1,700 degrees F. at the end of one hour. Temperature of the unexposed side as indicated by a thermocouple under a 0.40 inch asbestos pad shall be observed at intervals not greater than 5 minutes during the one-hour period of test.

(2) Data from these tests shall be analyzed to determine the thicknesses necessary to limit the average temperature rise on the unexposed surface to 250 degrees F. above the original temperature at the end of 15, 30, and 60 minutes.

(3) Excessive cracking, buckling, or disintegration may be considered cause for rejection.

(d) *Organic carbon content test.* (1) The organic carbon content shall be determined and shall not exceed 0.12 gram per cubic centimeter of the molded deck covering.

(e) *Spot check tests.* (1) Deck coverings are not inspected at regularly scheduled factory inspections; however, the cognizant Officer in Charge, Marine Inspection, may detail a marine inspector at any time to visit any place where deck coverings are manufactured to conduct any inspections or examinations deemed advisable and to select representative samples for further examination, inspection or tests. The marine inspector shall be admitted to any place where work is done on deck coverings or component materials.

(2) Manufacturers of approved deck coverings shall maintain quality control of materials used, manufacturing methods, and the finished product so as to meet the requirements of this specification, and any other conditions outlined on the certificate of approval, but the Coast Guard also reserves the right to make spot-check tests of approved deck coverings at any time on samples selected by a marine inspector at the place of manufacture or samples obtained from other sources in the field. The manufacturer will incur no expense for such tests, but the results shall be binding upon the approval of his product. The manufacturer will be